COTS/ONR Workshop - Key Points, Direction Ahead

On November 16-17, 2004 a workshop was held in Charleston, SC for recipients of the Coastal Observation Technology System (COTS) and Office of Naval Research (ONR) coastal and ocean observing awards as well as representatives from each of the nascent Regional Associations (RAs). The primary goals for the workshop were to 1) Enhance the coordination, especially data integration, among recipients and other collaborators; 2) Review guidance for FY05 proposal preparation; 3) Discuss the strategic outlook for COTS/ONR partners and an Integrated Ocean Observing System (IOOS).

A key outcome of the workshop was the consensus among participants to create a successful demonstration of data integration among coastal ocean observing systems within and across regions and with the national backbone. The charge to the group was to think about when and what this demonstration will be.

- The time is now (to demonstrate integration)
    - up to this group to demonstrate value of IOOS
    - FY06 is window of opportunity
- Envision a big picture demonstration to show power of data integration over the next year. What would this be?
    - Weather/Ocean Channel
    - National display portal
    - Others
- Possible long range goal for data integration - may be marine weather prediction

Short term product demonstration – *goal is to come up with integration demonstration product in 6 months. Participants felt that the following list of issues must be addressed to work toward this goal:*

- Short term focus: regional nowcast for multiple regions – something that rotary club would care about
- Selected forecasts – what would those be?
- Need Private sector involvement
- Need Regional Association (RA) engagement

The "enablers" – *5 priority areas for achieving the above integration demonstration in a 6 month timeframe. Working groups were formed to agree on a common approach for handling each topic and sharing this with the rest of the participants. Each group has 30 days to flesh out the particulars.*

1. metadata
2. QA/QC for data observations as well as products
3. data assembly/aggregation (common approach for file structures and interface)
4. common interface with specialized content
5. communication facilitation
    - catalog resources
    - sharing expertise
    - defining roles, responsibilities, and resources

Next stage of interoperability – *Recurring themes and issues about the next steps that must be taken to become interoperable.*

- Need to implement community approach and define next steps – leverage each other's expertise and move forward. (for example: SEACOOS has already started a 'data dictionary' – work from this and move on)
- Where does commonality end and regional specificity start? Some regions will have different data types, sharing methods, etc

- One idea for data integration product is dynamic national map – serves as portal to each region and to data layers

Data management – *some of the specific concerns the group had related to data management and integration issues.*

- Review and comment on Data Management and Communications Plan (DMAC) – be part of the solution
    - DMAC steering committee
    - Standards-specific technical working groups
    - IOOS implementation oversight
    - Leverage efforts/best practices as a group
- In terms of data integration some immediate steps can and should be addressed now to move the IOOS community forward:
    - Metadata
    - QA/QC
    - Data discovery, archival
    - Machine to machine interoperability

General Needs/concerns – *The following is a list of needs and concerns that were repeatedly brought up throughout the workshop to further the IOOS***.**

- Need best (or at least adequate) practices - do it and document it
- Need consistent IOOS-wide descriptions of data (metadata dictionary)
- Must have ability to access/retrieve data and information (FGDC clearinghouse as minimum)
- Must have ability for users to evaluate character of data using common browsers before downloading
- Common approaches for publishing data and metadata
- Involve Marine Metadata Initiative group
- Data from national providers not always accessible
- What is role of regions as "data assembly centers?"
- Data commons – need agreement for interoperability
- Liability issues – need to sort out
    - What are liabilities for providing operational data?
    - What are standards for date quality and reliability for mission agencies?
- One size does not fit all – different data types require different data transport/sharing mechanisms (ex. Biologists may prefer OBIS, CODAR folks CF/CDL)
- Define functionality of mapping portals. What is vision?
- Need to provide data in multiple formats
- Need to provide variety of data access methods

Equipment – *participants feel that equipment and sensors must be performing regularly and correctly. The following is a list of recommendations related to equipment needs.*

- Performance standards for sensors
- Sensor calibration service/facility

Future

While we address specific "enablers" to achieve data integration, we need to continue to work toward greater coordination among COTS, ONR projects and regional efforts.